5-minute Snowfall Observations

Observations are recorded by snow sensors at the National Weather Service office 5 miles southwest of Dousman, WI or about 35 miles southwest of Milwaukee. Graphs will be updated at least once a day at 6am, more often when significant snow is occurring.

Background:

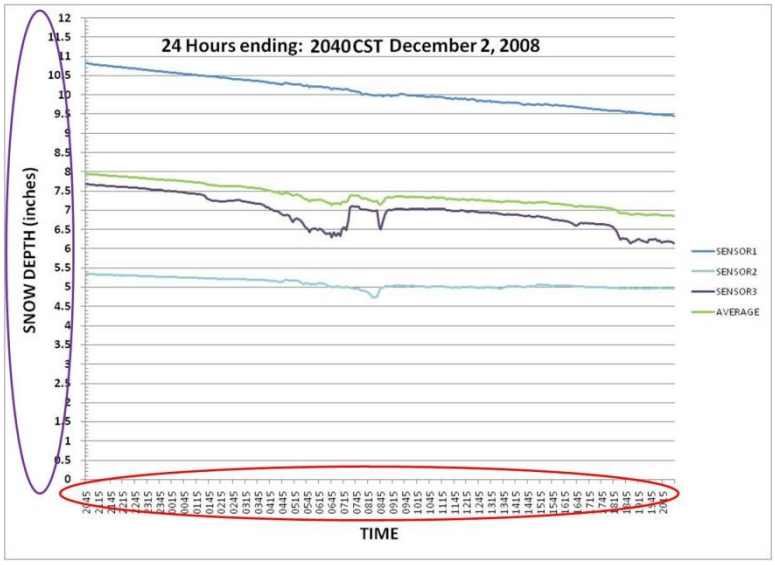
In 2006 the NWS Milwaukee office became one of 14 offices across the country selected in a study to test the accuracy of automated snow sensors. The study conducted in conjunction with Colorado State University was intended to find a more accurate and efficient means of measuring snow depth. The sensors also allow for more frequent observations.

Acoustic sensors send a pulse from the instrument straight downward. A snowboard is located at the ground below the sensor. The sensor records the amount of time for the pulse to bounce back off of the surface of the snowboard or top of the snow cover. This result is then calculated into a distance between the height of the sensor and the height of snow.

At the Milwaukee office it was determined that the snow sensors performed well in comparison to human measurements made by our forecasters through two seasons of testing.

Reading the graphs:

Snowfall is measured by three sensors every 5 minutes. This data will be displayed as blue and purple lines on the graph. The average of the three sensors is indicated with a green line. In most cases the sensors will have very similar readings and you may not be able to distinguish between the lines.



The data goes through some rough quality control steps, but is experimental and some questionable data may still appear particularly in low snow depth conditions. i.e.: animals moving under the sensors or other objects blowing by could lead to erroneous data.

There may be times when a slight wave pattern is noted in the observations. This is most often due to settling of the snow pack, primarily in the middle of a snow event or shortly after, the weight of the snow will cause the collapse of small air pockets leading to slight settling. Also on windy days there could be some variations in the snow depth.

Observation times are noted at the bottom of the graph in central time based on a 24 hour clock.

You see	**12hr clock time**
0200	2 am
1200	12 noon
1635	4:35pm
2355	11:55pm
0000	12 midnight

Note: This data is experimental, not official and should not be used for decision making. The precise accuracy of the sensors has not been determined.